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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,828

06/12/2006

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3900-0217

6858

26587 7590 12/03/2008  
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EXAMINER

BUTTNER, DAVID J

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

12/03/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,828	<b>Applicant(s)</b> XIA ET AL.	
	<b>Examiner</b> David Buttner	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 3-5, 8 and 11-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 7, 9, 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/15/05</u> .  | 6) <input type="checkbox"/> Other: _____                          |

Applicant's election with traverse of Group I and the species of acrylic adhesive base with pentaerithritol pentaacrylate in the reply filed on 11/10/08 is acknowledged. The traversal is on the ground(s) that the corresponding PCT's identical claims were searched fully without a lack of unity objection. Also, applicant argues 35 USC 372(b) provides only reexamining the question of unity of invention only when the application did not originate in the US. This is not found persuasive because 37 USC 372(b) does not explicitly prohibit reexamining the question of unity of invention applications originating in the US. The cited positive statement regarding unity of invention does not necessarily lead one to the conclusion that US originating applications cannot have the question of unity reconsidered. Secondly, some of the references that clearly anticipate the composition claims, but are not directed to semiconductor chip production (eg Toyoda, Lakatosh) were unavailable to be used during prosecution of the PCT application due to their publication dates. These references are available to be used in the instant application as of their filing dates - but not in the PCT. Additionally, the many of the composition claims are clearly unpatentable as indicated in the PCT search report. Undoubtedly, the composition claims will need to be amended. All the claims are identical to that of the PCT because applicant failed to provide adequate preliminary amendments. This should not be justification to avoid a restriction/lack of unity requirement. A lack of unity requirement after the claims have been amended following a first office action on the merits would probably be more unwelcome from applicant's point of view.

The requirement is still deemed proper and is therefore made FINAL.

If applicant chooses to admit the method of use claims are obvious from the composition claims, then the lack of unity will be rescinded.

The examiner recognizes applicant argues claim 8's crosslinkers are "optional" and therefore should read on the election of species. However, this is not convincing as the "is present" claim language requires the presence of the crosslinker. If the claim language is changed to " the optional crosslinking agent is", then the claim would read on the election. Currently, claims 1,2,6,7,9 and 10 read on the elections.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 6 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

"pentaerythritol pentaacrylate" does not exist. Pentaerythritol has only four hydroxyl groups to accommodate acrylate groups. Is dipentaerythritol pentaacrylate intended (page 5 line 13)?

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1796

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,2,6,7 and 9 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Uemura '395.

Uemura exemplifies (#1-6) pressure sensitive adhesives of acrylic polymer, polyisocyanate, multifunctional crosslinkers such as dipentaerythritol pentaacrylate and free radical photoinitiator. Although Uemura does not contemplate heat curing his adhesives, free radical photoinitiators are known to have the ability to be activated by sufficient heat. Therefore, the PSA's of Uemura are in fact inherently "thermocurable" even if unrecognized by the reference.

Stockinger '855 (col 8 line 1-9) and Akama '481 (col 4 line 51-55) can be cited to support the assertion of the thermocurability of photoinitiators.

Claims 1,2,7 and 9 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Toyoda '599.

Toyoda (abstract) discloses pressure sensitive adhesive sheets. Toyoda exemplifies (#1) a blend of 100g acrylic polymer, 100g of di(meth)acrylates and 3g of free radical photoinitiator. Toyoda teaches curing can alternatively be conducted under heat with a peroxide (col 6 line 10).

Claims 1,2,9 and 10 rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lakatosh 2003/0134108.

Lakatosh exemplifies (#2) a pressure sensitive adhesive of acrylic polymer, a high Tg polymer, a polyester tackifier, a diacrylate crosslinker and peroxide or azo initiator. The adhesive (paragraph 67) may be placed between two transfer films (ie release layers).

Claims 1,2,7,9 and 10 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ono '605.

Ono exemplifies (#8) a pressure sensitive adhesive of 60 parts acrylic polymer, 40 parts multifunctional acrylate "U-4HA" and 1 part of the peroxide "Perloyl IPP". The adhesive can be placed between two releasable layers (example 14).

Tsuji '260 (col 12 line 28) is cited to show the structure of "U-4HA". Yamada '283 (col 15 line 5) is cited to identify Perloyl IPP.

Claims 1,2,7 and 9 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over JP01270967.

The reference produces pressure sensitive adhesives of acrylic polymer, a multiacrylate and peroxide.

Claims 1,2,6,7 and 9 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Konda '678.

Konda (col 5 line 62 to col 6 line 1) suggests forming pressure sensitive adhesives of base polymer, polymerizable monomer and initiator followed by crosslinking with heat. The base polymer can be an acrylic polymer (col 5 line 22). The

Art Unit: 1796

polymerizable monomer can be dipentaerythritol pentaacrylate (col 5 line 31). The initiator can be benzoyl peroxide or azobisisobutyronitrile (col 5 line 53-55). Although these two initiators are listed as activatable by radiation, it is well known these two are both heat activatable also.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Buttner whose telephone number is 571-272-1084. The examiner can normally be reached on weekdays from 10 to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jim Seidleck, can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Buttner

11/24/08

/David Buttner/

Primary Examiner, Art Unit 1796

Application/Control Number: 10/560,828  
Art Unit: 1796

Page 7